

expected; however, some additional ARRA related applications are expected during the first quarter of FY11.

SURFACE WATER SECTION

Water Quality Standards Development: – Average Year

In FY09, ADEQ completed the triennial review of the Surface Water Quality Standards. EPA's review and approval of the revised standards continued into FY10. ADEQ responded to EPA's comments and requests for information on the standards development process. A site specific standard report was completed for a site specific copper standard for Pinto Creek and a revised rule is being developed. Staff has also begun to develop a proposal for standards revisions for FY12.

EPA: EPA has worked extensively with ADEQ to approve the revisions in stages. EPA approved portions of the standards revisions in record time on 1/21/09, within a week of the original submittal of 1/14/09; additional portions were approved on 3/25/09 and on 4/13/10. EPA and ADEQ dialogue continues on the lake nutrient standards. EPA and ADEQ have committed to revisiting the appropriateness of variances in AZPDES permits vs. Standards changes.

Surface Water Monitoring Program: – Average Year

The monitoring unit focused on the Upper Monitoring Region of the state during FY10 including the Little Colorado, Colorado/Grand Canyon, upper portion of The Colorado/Lower Gila and Bill Williams Watersheds. These watersheds experienced record snow and record floods, thus, many sites could not be sampled due to extremely high flows and due to closed roads during the 3rd quarter of FY10. The Monitoring Unit lost four field staff over the last eight months which made scheduling around inclement weather very difficult. Despite the weather and staffing difficulties, 94 of the 134 samples scheduled for FY10 were collected in accordance with the sampling and analysis plan.

Stream sites focused on 17 probabilistic monitoring sites, and 24 targeted sites. Most sites were sampled three times during the fiscal year. The lakes program also sampled four different lakes. Lakes were sampled two to three times per year. The lakes included Willow Springs, Bear Canyon, Knoll and Blue Ridge Reservoir.

EPA: EPA acknowledges the difficulties of monitoring according to plan due to weather, staffing, and other unpredictable circumstances. In spite of such issues, ADEQ was able to collect a significant number of samples in the targeted watershed region and continue the probabilistic monitoring sampling. In addition, ADEQ has been extremely cooperative and actively participated in conducting the national surveys (lakes and rivers); and are now gearing up to participate in the national wetlands survey in FY11.

TMDL Analyses: – Good Year

Final Documents

Although no TMDLs were submitted to EPA in the state FY 2010, the program showed progress. The six Oak Creek and five Lake Mary Regional TMDLs were released for public comment during June and July 2010. These TMDLs will be forwarded to EPA for approval by the end of September 2010.

TMDL Development

Interim milestones were completed on many projects that will lead to the development of several TMDLs. The Queen Creek model was revised based upon recent water quality results from potential natural background and anthropogenic source areas. The proposed Resolution Copper mine has increased the interest in the TMDL and differentiating between historic smelter deposits and natural background has proved difficult. Load Duration Curves were developed for the LCR sediment and *E. coli* TMDLs. These curves will serve as the basis for developing TMDL load reductions. The Lyman Lake coring study was drafted and revisions are underway. The completed study will be used to help define influxes of mercury to the lake and potentially identify sources- forest fire vs. coal fired power plant. The contractor completed the Mule Gulch site specific standard (SSS) modeling project. As staff complete other projects, determination of the applicability of the SSS will commence. The Pinto Creek SSS rule is being drafted and will set the numeric target upon which the TMDL will be based.

TMDL Monitoring

Monitoring for TMDL development continued on three lakes and seven stream TMDLs. A wet winter allowed staff to collect numerous samples on multiple projects (TMDL and effectiveness monitoring). Sample collection was completed on the LCR TMDLs and drafts have been started. Funding for TMDL monitoring in FY 10 was done using ARRA funding.

EPA: ADEQ is behind schedule in TMDL deliverables. However, the pace picked up towards the end of FY10. The draft Oak Creek TMDL had some TMDL elements missing or not clearly defined, and EPA provided comments to ADEQ. We received the final Oak Creek and Lake Mary TMDLs, and EPA is currently reviewing them.

TMDL Effectiveness and Implementation: – Average Year

Staff attended watershed meetings across the state to inform the public on TMDL activities in their local watershed and to provide technical help to those interested in developing 319(h) projects. Staff also participated in discussion with the three additional targeted watershed groups for Cycle 12. We continue to coordinate with Dr. Channah Rock (University of Arizona) to perform microbial source tracking analyses. Although the bovine marker has not proven to be reliable, we believe the results will help inform BMPs related to *E. coli* impairments.

Effectiveness Monitoring

Effectiveness monitoring continued on several projects. Results from Alum Gulch continue to show exceedances of several metals. Additional sampling along the upper Little Colorado River continued in order to collect additional turbidity and SSC data. Data analysis is ongoing. Additional sampling continued on Turkey Creek and showed no increase in metals concentrations downstream of the remediated mine sites. See also Performance Measure SP-12 (W) below.

Implementation Plan Development

TMDL Implementation Plan development did not meet expectations in FY10. The LMR TMDL included a TIP but was limited in scope as there are few options for controlling mercury on the watershed scale. The Oak Creek TMDL contained a brief TIP as the Oak Creek Watershed Council is developing a Watershed Improvement Plan. The draft Gila River TMDL reports contain TIPs within the documents.

Performance Measure SP-12 (W)

Although few additional water quality samples were collected on the four original SP-12 watersheds, work continued on all to improve water quality. The Franciscan Friars applied for and received a 319(h) grant to place a clean cap and run-on/off controls at the Gibson mine. Once the cap is in place additional water quality improvements should be realized in Pinto Creek. Region IX has determined that the tailings piles at the Hillside mine are not hazardous waste if disturbed for remedial purposes. Coordination continues with the stakeholders to develop a comprehensive remedial plan which includes realistic costs to inform the decision making process. Additional water quality samples collected from Alum Gulch indicate that water quality is still not attaining the applicable standards under base or storm flow conditions. The consolidation and capping that occurred at the World's Fair mine has been effective for remediating that site, but additional work is required in Humboldt Canyon. The USFS remedial efforts continue to be effective at the Golden Belt and Turkey mines as copper and lead levels do not increase through the site.

EPA: EPA commends the work done in the SP-12 waters and expects to see future water quality improvements from projects in Boulder Creek and Pinto Creek. Also, the coordination between the TMDL Unit and the Grants Unit appears to be well coordinated and is an example for others.

Regional Water Quality Management Planning: – Good Year

This year staff completed 23 Consistency Reviews in the 208 Planning process. Eight amendments were reviewed and five were approved before the end of the fiscal 10 year. Due to a downturn in construction this past year, 208 reviews and 208 amendments have not been as numerous as in past years. ADEQ was awarded a 604(b) American Recovery and Reinvestment Act (ARRA) grant. Staff has been attending and coordinating ARRA grant meetings to facilitate revised 208 Plans for the Central Arizona Association of Governments (CAAG), the Southeastern Arizona Governments' Organization (SEAGO) and Yuma County. Yuma County's draft 208 plan is ready for review by stakeholders and will be a new approach for Yuma County and a new template for future 208 Plans in the state. The draft Yuma Plan establishes a set of goals with specific objectives and strategies for achieving the goals. Facilities that are consistent

with the goals, objectives and strategies of the plan will be “consistent” with the plan. Under the Yuma plan, amendments will no longer be required every time a new treatment facility is proposed. SEAGO has had several environmental planning meetings and 208 staff is working to produce a new draft 208 plan. Both CAAG and SEAGO are set to produce draft 208 Plans for review by February 2011. Staff attended the six scheduled Water Quality Workgroup meetings and participated in local planning meetings. The 208 state mapping project had a setback due to technical issues and has resumed with the cooperation of the state regional water quality management agencies. Staff worked with MAG to sponsor a successful conference focused on a sustainable approach for wastewater infrastructure in January 2010. MAG, in conjunction with ADEQ, is continuing to promote this message throughout Arizona. MAG’s WQ Advisory Group is interested in promoting sustainable infrastructure management within the jurisdiction of Maricopa County.

EPA: EPA commends the effort towards sustainability changes in the planning and training process and the new template for 208 plans. EPA is interested in how the changes will impact planning across the state.

Groundwater Monitoring: – Average Year

Due to budget cuts no groundwater monitoring was done this year. Instead emphasis was placed on completed reports for basins where sampling was completed. Staff for the groundwater monitoring program is limited to one employee. During FY10, reports were completed for the Gila Valley Sub-Basin and the McMullen basin. A draft copy of the Dripping Springs Basin and McMullen Valley Basin reports are being reviewed and are expected to be finalized in August 2010.

AZPDES (AZ Pollutant Discharge Elimination System) Permits – Good Year

FY10 was the seventh full year of AZPDES implementation since program approval. The permits program status is as follows:

Individual AZPDES

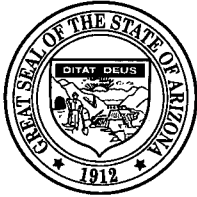
- During this period, 33 AZPDES individual permits were issued. Twelve of these were major facilities; Seven of the 34 issued permits were for new discharges. In addition, one major modification was completed.
- Only seven permits out of our universe of 164 are presently backlogged. Of these, two are in public notice or have completed public notice.

Stormwater and General Permits Program

In FY09, ADEQ continued to develop the Stormwater and General Permits Unit created in FY08. A summary of the Unit activities in FY09 is as follows:

Phase I MS4s

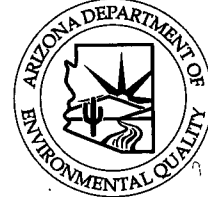
- ADEQ continued to meet with the six Phase I MS4s that have not been re-issued individual municipal stormwater permits. The city of Mesa permit was issued for public notice on April 1, 2010



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

July 9, 2010

Karen Graves
USEPA REGION 9
75 Hawthorne Street
Mail Code: AIR-2
San Francisco, CA 94105

Re: Semi-annual Progress Report for the 106 Grant

Dear Mrs. Graves:

The following table outlines Arizona's progress with regard to the 106 Monitoring Funds that were approved in April 2007. The table includes all tasks from January to July 2010. Previous tasks are detailed in earlier semi-annual progress reports.

Task	Planned Completion Date	Narrative Description of Progress, Slippages or Cost Overruns
Physical Integrity	2010, June	<u>Off-Target.</u> Dr. Lin Lawson was the project manager for this task. He retired on April 30, 2010. Dr. Lawson's duties were transferred to Kurt Ehrenberg. Kurt's position was eliminated through a reduction in force action in May, 2010. Geomorphology data was collected for 8 sites in FY10. The 6 to 8 sites that were scheduled to be sampled were missed due to lack of staff to replace Dr. Lawson and Mr. Ehrenberg. We are currently trying to hire a contractor to complete this task.
Emerging Contaminants	2010, June	<u>Off-target.</u> Emerging contaminants could not be added to the FY10 sample plan because the State lab contract was canceled. The State lab was ADEQ's main source for emerging contaminant analysis. Their contract was canceled due to budget constraints.

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

Task	Planned Completion Date	Narrative Description of Progress, Slippages or Cost Overruns
Intermittent Streams	2010, June	<u>Off-Target</u> . Kurt Ehrenberg was the project manager for this task. Kurt's position was eliminated through a reduction in force action in May, 2010. We were not able to collect flow, chemistry and macroinvertebrate data since May, 2010. A total of 22 out of 30 sites have been collected for FY11. We are currently trying to hire a contractor to complete this task.
Effluent Dominated Waters	2010, June	<u>On-Target</u> . Only one effluent dominated water was sampled this year. This is the only site we could locate that does not reuse their effluent in the part of the state we are currently working in (upper monitoring region).

Please feel free to contact me at (602) 771-2235 if you have any questions regarding this report.

Sincerely,



Jason D. Jones
Supervisor, Monitoring Unit
Surface Water Section

Cc: Debra Daniel, Manager, Surface Water Section, ADEQ
Linda Taunt, Deputy Director, Water Quality Division, ADEQ
Janet Hashimoto, Section Chief, Monitoring & Assessment Section, EPA